The "Smogbusters Way to Uni" Resource Kit for Promoting Sustainable Transport to Sustainable Campuses

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ABSTRACT

Motor vehicle travel to and from universities contributes significantly to local and regional air pollution, greenhouse gas emissions, traffic congestion, urban sprawl and noise. By providing sustainable transport alternatives, universities can reduce these impacts while also reducing costs and attracting students and staff.

Since 1999, the state conservation councils' Smogbusters program has worked with selected urban universities to encourage students, staff and visitors to walk, cycle or catch public transport to university. The Smogbusters Way to Uni project has seen universities and student unions create Access Guides, and lobby governments and public transport providers for better services and facilities.

Smogbusters are now collecting examples of the best practices around Australia and the world to reduce university-generated vehicle kilometres travelled (vkt), and the corresponding negative impacts on local communities, regional airsheds and global climates. Smogbusters will first profile Queensland universities, eventually reviewing all Australian universities to find the campuses with the most sustainable transport.

A web-based matrix is proposed to help universities identify good practices currently in place at other universities, as well as providing case studies, contact details of relevant personnel and links to additional web-based resources for university environmental managers, planners and student organisations. Awards may also be granted.

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Eric Manners and the rest of the Smogbusters team are passionate about walking, cycling and public transport – the best solutions to reduce the negative environmental, social and economic impacts of motor vehicle use. Eric is also enrolled in the Master of Environmental Science at Griffith University, and has served as the convenor of the University of Queensland Bicycle User Group (UQBUG).

Introduction – The "Smogbusters Way to Uni"

Smogbusters is a nationwide, non-government network whose main objective is to reduce air pollution, mainly through reducing motor vehicle use and promoting walking, cycling and public transport. Smogbusters Project Officers based at the peak environment organisations in Queensland, New South Wales, Victoria, South Australia and Western Australia have been developing innovative ways to protect air quality since 1995.

One such innovation is the "Smogbusters Way to Uni". Universities are some of the largest trip generators in many Australian cities, and this means they contribute significantly to local and regional air pollution, greenhouse gas emissions, traffic congestion, urban sprawl and noise, to name only some of the negative impacts of motor vehicle use.

But universities also represent a great opportunity. Because of the large volumes of trips by staff, students and visitors to many campuses, frequent and high-quality public transport services can be provided, and good walking and cycling facilities are also in high demand. In addition, by providing sustainable transport alternatives, universities can reduce the negative impacts of car use while also reducing costs and attracting students and staff.

In addition, universities are uniquely placed to develop, experiment with and take the leadership in implementing new environmental developments. Or as it is stated in NUS's Sustainable Universities Campaign 2001 report, "Universities are the best testing grounds to put new knowledge into action and to trial new programs. They should be taking the lead when it comes to sustainability." (NUS 2001, p.25)

Since the Way to Uni project began in 1999, Smogbusters have worked with selected urban universities to encourage students, staff and visitors to walk, cycle or catch public transport to university. The Smogbusters Way to Uni project has seen universities and student unions create Access Guides, carry out travel surveys, and lobby governments and public transport providers for better services and facilities.

Why Car Use is Unsustainable

David Banister (2000, p.16) provided a succinct list of "issues to be addressed if transport is to conform with the principles of sustainable urban development":

- traffic congestion
- increasing air pollution
- traffic noise
- road safety (injury and death)
- degradation of urban landscapes
- reduction of accessibility for others
- global warming (dependence on oil)
- decentralisation of cities (land use)
- inequitable spatial segregation
- globalisation (increased freight)

Health costs are an additional concern, especially in relation to air pollution and road safety. And Peter Newman and Jeffrey Kenworthy (1999) have shown that building roads instead of investing in alternative transport improvements does not stimulate the economy but rather has a negative overall impact on a city or nation.

With increases in travel and particularly in car use forecasted in most of the world's major cities, we face a major challenge to facilitate continued access of people to goods, while also protecting the livability of our cities and our planet.

Brief Description of Proposed Resource Kit

There are many specific measures that can be taken by universities to promote sustainable transport to their campuses, and many of these "Good Transport Practices" are already in place at one or more universities around Australia. The goal of the "Smogbusters Way to Uni Resource Kit for Promoting Sustainable Transport to Sustainable Campuses" is to compile case studies of the best practices around the country, and to assist other universities in adapting these practices to their own campuses.

"Good Transport Practices"

The first step in developing the Resource Kit has been the compilation of a draft list of "Good Transport Practices for Universities", provided as an [Appendix] and discussed in more detail below. This list incorporates good practices from around Australia and the world, and can be updated as new innovations emerge.

Questionnaire to Universities

Once finalised, after input from university researchers, environmental managers and students, as well as other community organisations, the list of Good Transport Practices will be sent to representatives of each university. A questionnaire will be included to determine which practices (or additional ones) each university currently has in place or is in the process of implementing. Representatives will also be asked to provide case studies of their most successful and innovative programs, as well as the relevant contact details for program managers.

Website

Upon return of the questionnaires, a website is proposed which would list all of the Good Transport Practices, showing which universities have each practice in place. Users could link to case studies of the best programs for each good practice, as well as to a listing of the relevant contacts at each university.

Initially, Smogbusters will focus our resources on Queensland universities. However, other enthusiastic universities are welcome to participate, especially by providing case studies of their own best practices. In addition, the Resource Kit and website/database could be expanded nationally with the assistance of universities and/or student unions.

Consistency with Sustainable Universities Campaign

Sustainable transport is an essential component of any sustainable university. However, because it involves changing the behaviour of thousands of staff and students, improving a university's performance in the transport area can be a greater challenge

than improving waste management, reducing emission levels from stacks or greening departmental offices.

Fortunately, this "Smogbusters Way to Uni Resource Kit" will provide universities with expertise gathered by Smogbusters and other organisations over many years. Rather than developing new techniques and technologies, universities can largely follow each other in putting good transport practices in place.

While creating a "sustainable campus" may seem a daunting task to many university staff and students, this Resource Kit is intended to help universities beyond the critical first question: "Where do we start?" Upon viewing a draft listing of Good Transport Practices, one Griffith University staff member said that a similar list of good practices in each Sustainable Universities area would make their work much easier.

While Smogbusters cannot offer a list of good practices for *all* areas of sustainability, we hope that this Way to Uni Resource Kit can act as a sustainable transport "module" for the Sustainable Universities movement, as referred to by NUS (2001, p.55)

List of Good Transport Practices for Universities

Smogbusters have developed a list of over 65 good transport practices for universities, separated into ten categories. These are listed below with a brief explanation and justification of each category, and again in the Appendix in the form of a questionnaire for universities.

1.   *Management / Administration*
1.1   University has signed the Universities of Australia Ecologically Sustainable Development Charter
1.2   University staff member dedicated to promoting alternative modes of transport
1.3   Student Union staff member dedicated to promoting alternative modes of transport
1.4   University's environmental management system (EMS) and plan include transport
1.5   Environmental advisory committee established whose scope includes transport
1.6   Partnerships formed with relevant public transport provider/s
1.7   Partnerships formed with relevant local and state governments

Notes: These items involve putting the necessary systems in place at the university to make possible further steps towards sustainable transport. Some involve university leadership for sustainability from the highest level (e.g. 1.1, 1.2, 1.4), but others can be achieved through the initiative of an individual or a group of dedicated individuals (e.g. 1.3, 1.5). Partnerships will happen along the way as the university works towards some of the more specific transport practices listed later.

2.   *Green Transport Plan*
2.1   As part of university's EMS, Green Transport Plan (GTP) produced and adopted by the university including an action plan for reducing university-related motor vehicle use
2.2   Students and staff involved in the production and implementation of the GTP as volunteers and/or as part of coursework/employment
2.3   Travel survey undertaken including GIS analysis of transport to/from the university
2.4   Assessment of university's transport related social, environmental and economic impacts, and targets for improvement

2.5   Economic analysis of how much money the university could save by implementing various GTP actions

2.6   Green Transport Access Guide produced showing how to reach the uni without a car

2.7   Green Transport Access Guide distributed as a leaflet and/or within the Student Guide to all students at the beginning of each year along with parking information

2.8   Staff business cards provide green access information on reverse side

2.9   Promotional materials for university events contain green access information

Notes: The UK is leading the way in "travel plans", especially for workplaces. Smogbusters have developed a specific methodology for promoting Green Transport Plan (GTP) development and implementation in Australian workplaces (the "Smogbusters Way to Work"), and much of this methodology is applicable to universities. A university's GTP will provide them with a detailed action plan for making their campuses sustainable in terms of transport. Staff and students should be involved as widely as possible in both the development and the implementation of the GTP, as this will increase awareness of and support for the GTP while also providing students with very relevant hands-on experience. Several examples of Smogbusters' Green Transport Access Guides can be downloaded from the Smogbusters Qld website. From the home page, just click on "Resources".

3. Vehicle Fleet Management

3.1   As part of GTP, a green fleet management strategy is established for the university including a fleet vehicle use reduction framework

3.2   Electric and non-motorised vehicles (like golf carts and bicycles) used where possible

3.3   Security personnel on bicycles or on foot

3.4   All newly purchased fleet vehicles run on LPG/CNG or cleaner fuel technology

3.5   Maintenance system ensures all fleet vehicles are kept optimally tuned to reduce fuel consumption and emissions

3.6   Salary packaging policy allows inclusion of alternatives to provision of a car

3.7   Salary packaging policy gives alternative benefits to staff who opt not to use car parking

Notes: While the university's largest negative transport impacts will relate more to their staff and students' travel choices, internal operations also make a contribution to air pollution, local traffic congestion and a campus that is less friendly to pedestrians and cyclists.

4. University Land Use Planning

4.1   Long-term university land use plan developed to promote non-car transport modes

4.2   Campus centres are car-free to promote walking and cycling, with "Shared Zone" car access limited to handicapped parking, loading zones and public transport interchanges

4.3   All new buildings or renovations increase campus density and reduce "campus sprawl"

4.4   All new buildings include end-of-trip facilities (e.g. indoor bike parking, showers, lockers and towel rails)

4.5   All key access corridors designed to cater for both pedestrians and cyclists

Notes: This is perhaps the most urgent area of all as today's decisions about where to locate a building or whether or not to build a new multi-level car park will have very long-term and possibly irreversible impacts on the university's transport sustainability. "Shared zones" are pedestrian priority zones where motorists are limited to 10 km/hr.

5.   Travel Demand Management
5.1   Daily parking fees set higher than an all-day, all modes public transport ticket
5.2   Total provision of car parks limited as a percentage of students and staff
5.3   Individualised marketing of alternative modes to staff/students (possibly using "before and after" travel surveys)
5.4   Posters and other advertising used to promote alternative modes
5.5   Staff are provided the means to work from home when possible

Notes: Travel Demand Management (TDM) can be defined as: "Intervention (excluding provision of major infrastructure) to modify travel decisions so that more desirable transport, social, economic and/or environmental objectives can be achieved, and the adverse impacts of travel can be reduced" (IE Aust and Austroads quoted in Transport WA 1996, p.76). TDM can include minor physical infrastructure such as traffic calming or reduction of road space; changes in pricing policy; or education or marketing to reduce demand for travel. TDM has become an affordable means for governments and large organisations (such as universities) to avoid the need for costly infrastructure development.

6.   Security and Safety
6.1   40 km/hr speed limit or lower on all campuses
6.2   10 km/hr "Shared Zones" where applicable
6.3   Enforcement of posted speed limits
6.4   After-dark shuttle provided to offer lifts to and from nearby suburbs
6.5   All pedestrian and cycle paths well-lit and designed using "Crime Prevention Through Environmental Design" (CPTED) principles

Notes: Often people use their cars because they think any other option less safe. Unfortunately a walk through a car park can be as dangerous as a walk or ride from home or from a distant train station or bus stop. While increased security and safer design is essential in order to promote alternative transport, it is already a core responsibility of all universities to make their campuses safe for everyone.

7.   Public Transport
7.1   15-minute weekday off-peak frequency for key public transport routes
7.2   30-minute evening and weekend frequency for key public transport routes
7.3   Free inter-campus shuttle, if applicable
7.4   Free shuttle to nearest railway station or major interchange
7.5   Cross-town as well as radial routes available
7.6   All public transport services wheelchair accessible
7.7   Public transport timetables and information available at key locations on each campus
7.8   Covered, well-lit, secure and conveniently located transit depot/interchange/terminus on each campus
7.9   Free or discounted public transport for students and staff
7.10   Staff can opt for a payroll deduction to pay for long-term public transport passes

Notes: Good public transport services are obviously a key part of sustainable transport for sustainable campuses, but minor details can be the difference between a successful and an unsuccessful public transport service. This is why we look forward to hearing university's case studies, as those who have gotten it right can help those who have not.

8. Cycling

8.1   Full audit of cycling access and safety to and through campus performed
8.2   Cycle routes provided through each campus
8.3   Cycle routes through campus connect to city's network and key off-campus destinations
8.4   Covered, well-lit, secure bicycle parking provided at every building or building cluster
8.5   Secure indoor bicycle parking and/or bike lockers made available on each campus
8.6   Cycle map of each campus and vicinity produced showing cycle routes, bicycle parking, and end-of-trip facilities (see 4.4)
8.7   Bicycle user group, club or representative committee formed to provide uni with advice
8.8   Bike shop or bike maintenance available on each campus

Notes: Many universities seem to view cycling as more of a problem than an opportunity. But about ten bicycles can be parked in the same space as one car, and healthy, active staff and students who cycle instead of drive to uni will be more productive and more able to contribute. As with public transport, we have to get the details right if we hope to see more people moving from four wheels to two.

9. Walking / Wheeling

9.1   Full audit of pedestrian access and safety to and through campus performed
9.2   Full audit of wheelchair access and safety to and through campus performed
9.3   Pedestrian (zebra) crossings at all high-demand crossing points on and near campus
9.4   All pedestrian crossings are raised (like speed humps)
9.5   Safe walking routes connect on-campus residents to campus and to public transport
9.6   Long-term strategy being implemented to provide optimal wheelchair accessibility

Notes: Everyone, even the motorist, has to walk for some part of their journey. Why then do motorists so often get priority? Slight changes in right-of-way, road markings or speed limits can make much more pleasant, and can make the university a far safer place to study or work. Designing for people in wheelchairs can be the best way to get it right for everyone. At any one time, 20% of people have some form of disability or difficulty including not just people in wheelchairs but mothers pushing prams or carrying babies, the elderly, people carrying baggage, people on crutches with temporary injuries, etc. If it is designed well for the person facing challenges, then those without challenges will also benefit and be all the more likely to leave their car at home.

10. Car-Pooling / Ride Share

10.1 University-administered car-pooling scheme established
10.2 Web page provides car-pooling info and registration
10.3 Targets for continuously improving performance of the scheme
10.4 Campuses' most convenient car parks reserved for car-poolers
10.5 "Hitching Post" where travellers can get a lift or passengers (plus security measures)

Notes: The negative impacts of car use could be significantly decreased if most cars contained three or four people instead of just one. While many small workplaces have a difficult time promoting car-pooling, a number of universities have shown that car-pooling can be promoted to staff and students. Of course alternative modes are still preferred, but car-pooling is always better than putting another SOV (single-occupant vehicle) on the road.

Good Practices Questionnaire

In one sense, the List of Good Transport Practices for Universities (see Appendix), while only in draft form, is a useful resource in itself. However each good practice will be much easier for a university to implement once a number of case studies have been gathered from universities who have already implemented some of these practices. Or even if a comprehensive case study was not available, it would be helpful for other universities if they knew who to contact for advice on each practice.

Thus, once finalised, the List of Good Transport Practices will be sent to each university (initially in Queensland) in the form of a questionnaire, as in the Appendix. It is hoped that each university would return the completed questionnaire along with case studies of the programs they are most proud of, or would most like to share with other universities. Finally, the contact details of relevant staff members or program managers would be requested so that a network of university transport managers can develop.

The results of the questionnaires, along with case studies and contact details, will be compiled into tables showing which universities have implemented each practice. Initially universities could contact Smogbusters to find out who they should contact for advice on various practices, but more efficient and helpful distribution methods are being explored.

Web-based Resources and Matrix

In order to provide university staff members and students with convenient and efficient access to the questionnaire results, case studies and contact details, Smogbusters will develop a website containing the entire Way to Uni Resource Kit. The following elements are envisaged:

- Matrix tables for each category of Good Transport Practices showing which universities have each practice in place (see Figure 1)
- Page for each university (including case studies, contact details and links)
- Resource page for each Good Transport Practice (including case studies, links and references)

Figure 1: Possible Matrix Table for Cycling (category 8)

University	Good Transport Practices: 8. Cycling							
	8.1	**8.2**	**8.3**	**8.4**	**8.5**	**8.6**	**8.7**	**8.8**
Australian Catholic University	Y	N	P	N/A	Y	N	P	N/A
Bond University	N/A	Y	N	P	N/A	Y	N	P
Griffith University	P	N/A	Y	N	P	N/A	Y	N
James Cook University	N	P	N/A	Y	N	P	N/A	Y
Qld University of Technology	Y	N	P	N/A	Y	N	P	N/A
University of Central Queensland	N/A	Y	N	P	N/A	Y	N	P
University of Queensland	P	N/A	Y	N	P	N/A	Y	N
University of Southern Queensland	N	P	N/A	Y	N	P	N/A	Y
University of the Sunshine Coast	Y	N	P	N/A	Y	N	P	N/A

Y = Yes, fully implemented. N = No, not implemented. P = Partially implemented. N/A = Not applicable.
Note 1: The values in this table are absolutely hypothetical and not at all based on reality.
Note 2: This table could easily include all universities in Australia if the data were available.

Queensland Universities or Nationwide?

Due to limited human and financial resources, Smogbusters will begin the Way to Uni Resource Kit in Queensland, with the intention of extending it to include all Australian universities after the first year. However, with enough interest from other universities and with the assistance of universities and/or student unions, we could include all universities from the start rather than expanding later. Alternatively, interested non-Queensland universities are encouraged to participate along with the Queensland universities, especially by contributing case studies to improve the resources available in the Resource Kit.

We Need Your Feedback

Smogbusters are keen to receive feedback regarding the Way to Uni Resource Kit. The following feedback would be particularly helpful:

- **"List of Good Transport Practices":** Any other good practices out there? Are these practices really "good"? Should they be reworded? Do they make sense?
- **Questionnaire:** How are universities likely to respond? How can we better format or present the List of Good Transport Practices to improve our chances of getting a positive and complete response?
- **Website:** How can the website be more useful for you and for your university? Design and content suggestions also welcomed.
- **Overall:** Is this Resource Kit helpful? Would you use it? What would make it even more useful? Will it help to improve transport practices at your university?

Timeline for Feedback and Implementation

- **Friday, 19 October 2001** – Deadline for comments on the draft list of "Good Transport Practices", Appendix. **Your feedback is greatly appreciated.**
- Early November 2001 – Questionnaires sent out.
- Friday, 14 December 2001 – Deadline for Questionnaires to be returned by universities and student unions (six weeks for universities' responses)
- October 2001 to January 2002 – Website and database development
- February 2002 – Official launch of Way to Uni Resource Kit

References

Banister, David (2000), "Sustainable urban development and transport – a Eurovision for 2020", *Transport Reviews*, 20, 1, 113-130.

Newman, Peter and Jeffrey Kenworthy (1999), *Sustainability and Cities: Overcoming Automobile Dependence*, Island Press, Washington DC.

NUS (National Union of Students), "Sustainable Universities Campaign 2001: Meeting the needs of today's students without compromising the future", www.unistudent.com, accessed 21 September 2001.

Transport WA (1996), *Perth Metropolitan Transport Strategy 1995-2029*, Transport WA, Perth, www.transport.wa.gov.au/metro/strategy/documents/mts.pdf, (slightly different version) accessed 10/6/00.

Appendix: The "Smogbusters Way to Uni"
List of Good Transport Practices for Universities

Has your university successfully implemented the following Good Transport Practices for promoting Sustainable Transport?	Yes	No	Partially Completed	Not applicable
1. Management / Administration				
1.1 University has signed the Universities of Australia Ecologically Sustainable Development Charter	Y	N	Part	N/A
1.2 University staff member dedicated to promoting alternative modes of transport	Y	N	Part	N/A
1.3 Student Union staff member dedicated to promoting alternative modes of transport	Y	N	Part	N/A
1.4 University's environmental management system (EMS) and plan include transport	Y	N	Part	N/A
1.5 Environmental advisory committee established whose scope includes transport	Y	N	Part	N/A
1.6 Partnerships formed with relevant public transport provider/s	Y	N	Part	N/A
1.7 Partnerships formed with relevant local and state governments	Y	N	Part	N/A
2. Green Transport Plan				
2.1 As part of university's EMS, Green Transport Plan (GTP) produced and adopted by the university including an action plan for reducing university-related motor vehicle use	Y	N	Part	N/A
2.2 Students and staff involved in the production and implementation of the GTP as volunteers and/or as part of coursework/employment	Y	N	Part	N/A
2.3 Travel survey undertaken including GIS analysis of transport to/from the university	Y	N	Part	N/A
2.4 Assessment of university's transport related social, environmental and economic impacts, and targets for improvement	Y	N	Part	N/A
2.5 Economic analysis of how much money the university could save by implementing various GTP actions	Y	N	Part	N/A
2.6 Green Transport Access Guide produced showing how to reach the uni without a car	Y	N	Part	N/A
2.7 Green Transport Access Guide distributed as a leaflet and/or within the Student Guide to all students at the beginning of each year along with parking information	Y	N	Part	N/A
2.8 Staff business cards provide green access information on reverse side	Y	N	Part	N/A
2.9 Promotional materials for university events contain green access information	Y	N	Part	N/A
3. Vehicle Fleet Management				
3.1 As part of GTP, a green fleet management strategy is established for the university including a fleet vehicle use reduction framework	Y	N	Part	N/A
3.2 Electric and non-motorised vehicles (like golf carts and bicycles) used where possible	Y	N	Part	N/A
3.3 Security personnel on bicycles or on foot	Y	N	Part	N/A
3.4 All newly purchased fleet vehicles run on LPG/CNG or cleaner fuel technology	Y	N	Part	N/A
3.5 Maintenance system ensures all fleet vehicles are kept optimally tuned to reduce fuel consumption and emissions	Y	N	Part	N/A
3.6 Salary packaging policy allows inclusion of alternatives to provision of a car	Y	N	Part	N/A
3.7 Salary packaging policy gives alternative benefits to staff who opt not to use car parking	Y	N	Part	N/A
4. University Land Use Planning				
4.1 Long-term university land use plan developed to promote non-car transport modes	Y	N	Part	N/A
4.2 Campus centres are car-free to promote walking and cycling, with "Shared Zone" car access limited to handicapped parking, loading zones and public transport interchanges	Y	N	Part	N/A
4.3 All new buildings or renovations increase campus density and reduce "campus sprawl"	Y	N	Part	N/A
4.4 All new buildings include end-of-trip facilities (e.g. indoor bike parking, showers, lockers and towel rails)	Y	N	Part	N/A
4.5 All key access corridors designed to cater for both pedestrians and cyclists	Y	N	Part	N/A

[DRAFT – Please provide comments to Eric Manners before 19 Oct 2001, smog@qccqld.org.au]

Has your university successfully implemented the following Good Transport Practices for promoting Sustainable Transport?	Yes	No	Partially Completed	Not applicable
5. Travel Demand Management				
5.1 Daily parking fees set higher than an all-day, all modes public transport ticket	Y	N	Part	N/A
5.2 Total provision of car parks limited as a percentage of students and staff	Y	N	Part	N/A
5.3 Individualised marketing of alternative modes to staff/students (possibly using "before and after" travel surveys)	Y	N	Part	N/A
5.4 Posters and other advertising used to promote alternative modes	Y	N	Part	N/A
5.5 Staff are provided the means to work from home when possible	Y	N	Part	N/A
6. Security and Safety				
6.1 40 km/hr speed limit or lower on all campuses	Y	N	Part	N/A
6.2 10 km/hr "Shared Zones" where applicable	Y	N	Part	N/A
6.3 Enforcement of posted speed limits	Y	N	Part	N/A
6.4 After-dark shuttle provided to offer lifts to and from nearby suburbs	Y	N	Part	N/A
6.5 All pedestrian and cycle paths well-lit and designed using "Crime Prevention Through Environmental Design" (CPTED) principles	Y	N	Part	N/A
7. Public Transport				
7.1 15-minute weekday off-peak frequency for key public transport routes	Y	N	Part	N/A
7.2 30-minute evening and weekend frequency for key public transport routes	Y	N	Part	N/A
7.3 Free inter-campus shuttle, if applicable	Y	N	Part	N/A
7.4 Free shuttle to nearest railway station or major interchange	Y	N	Part	N/A
7.5 Cross-town as well as radial routes available	Y	N	Part	N/A
7.6 All public transport services wheelchair accessible	Y	N	Part	N/A
7.7 Public transport timetables and information available at key locations on each campus	Y	N	Part	N/A
7.8 Covered, well-lit, secure and conveniently located transit depot/interchange/terminus on each campus	Y	N	Part	N/A
7.9 Free or discounted public transport for students and staff	Y	N	Part	N/A
7.10 Staff can opt for a payroll deduction to pay for long-term public transport passes	Y	N	Part	N/A
8. Cycling				
8.1 Full audit of cycling access and safety to and through campus performed	Y	N	Part	N/A
8.2 Cycle routes provided through each campus	Y	N	Part	N/A
8.3 Cycle routes through campus connect to city's network and key off-campus destinations	Y	N	Part	N/A
8.4 Covered, well-lit, secure bicycle parking provided at every building or building cluster	Y	N	Part	N/A
8.5 Secure indoor bicycle parking and/or bike lockers made available on each campus	Y	N	Part	N/A
8.6 Cycle map of each campus and vicinity produced showing cycle routes, bicycle parking, and end-of-trip facilities (see 4.4)	Y	N	Part	N/A
8.7 Bicycle user group, club or representative committee formed to provide uni with advice	Y	N	Part	N/A
8.8 Bike shop or bike maintenance available on each campus	Y	N	Part	N/A
9. Walking / Wheeling				
9.1 Full audit of pedestrian access and safety to and through campus performed	Y	N	Part	N/A
9.2 Full audit of wheelchair access and safety to and through campus performed	Y	N	Part	N/A
9.3 Pedestrian (zebra) crossings at all high-demand crossing points on and near campus	Y	N	Part	N/A
9.4 All pedestrian crossings are raised (like speed humps)	Y	N	Part	N/A
9.5 Safe walking routes connect on-campus residents to campus and to public transport	Y	N	Part	N/A
9.6 Long-term strategy being implemented to provide optimal wheelchair accessibility	Y	N	Part	N/A
10. Car-Pooling / Ride Share				
10.1 University-administered car-pooling scheme established	Y	N	Part	N/A
10.2 Web page provides car-pooling info and registration	Y	N	Part	N/A
10.3 Targets for continuously improving performance of the scheme	Y	N	Part	N/A
10.4 Campuses' most convenient car parks reserved for car-poolers	Y	N	Part	N/A
10.5 "Hitching Post" where travellers can get a lift or passengers (plus security measures)	Y	N	Part	N/A

[DRAFT – Please provide comments to Eric Manners before 19 Oct 2001, smog@qccqld.org.au]